

XXI. *Observations on the genus Helota, M'Leay, with description of a new species from Japan.* By Rev. H. S. GORHAM.

[Read 6th July, 1874.]

THE genus *Helota* was established by M'Leay, in the "Annulosa Javanica," for an insect from Java, *Helota Vigorsii*, which he described then as "one of the most curious and novel forms of the whole collection." Since then Westwood has made known a second species, *H. Mellyi*, from India, in "The Oriental Cabinet," and Hope a third, *H. Guerinii*, in "The Coleopterist's Manual." The genus is in every way a most remarkable one, and stands alone as a most aberrant, or rather as a highly developed, and so isolated form in the group to which M'Leay, as I believe, has rightly assigned it, viz., the *Necrophaga*. That Mr. Lewis should have found a fourth species in Japan, which by its habits, feeding at the sap exuding from the bores of the *Cossus* larva, as well as by its curious sexual characters, confirms its location there near to *Ips*, will be admitted as one of the most interesting of his discoveries in the far East, and not less the fact of this tropical genus extending so far north, though this is a point with which his collections there have familiarized us.

M'Leay has, I think, laid too much stress on a supposed affinity to the *Erotyliens*, and especially to *Languria*, based it would seem on nothing more than the elongate form, clavate antennæ, and metallic hue; the tarsal structure is essentially distinct.

It is true, indeed, that in this latter respect *Helota* diverges widely from *Ips*, for while in that it is the fourth joint that is minute, here the first is very small and concealed by the socket of the tibiæ at their insertion. If, however, we regard the general habit of the species, together with the curious elongation of the elytra in the female, there can be little doubt of its true location, for the same disparity is found in *Ips*, where it is the female that has the longer, and sometimes acuminate, elytra. But while thinking that *Ips* is the nearest ally *Helota* has, I

cannot help (in accordance with my view on the families of the ENDOMYCICI) expressing an opinion that before long it will be found conducive to uniformity of system, to consider such sections as the *Ipinæ* worthy of the title of families, and that the high development of such a genus as *Helota*, as well as its tarsal peculiarities, would justify its separation into a family by itself.

Group NECROPHAGA.

Fam. NITIDULIDÆ (*Ipinæ*).

Genus HELOTA, M^cLeay.

Helota gemmata, n. sp.

Oblongus, subparallelus, æneo-piceus, nitidus, crebre fortiter punctatus; elytris striato-punctatis, interstitiis elevatis, extus irregularibus; interstitio quarto maculis duabus parvis lucidis, luteis. Long. lin. $5\frac{1}{2}$ —7, ♂ ♀.

Mas, tibiis anticis leviter incurvatis et interne carinatis; elytris apice obtuse rotundatis; abdomine segmentis sex apertis, segmento quinto medio depressione lato, hoc dense cupreo-piloso, segmento sexto precedente plus duplo angustiore, margine laterali incrassato atque elevato, apice triangulariter exciso.

Femina, elytris apice acuminato, abdomine segmentis quinque apertis, quinto medio apicem versus nonnihil depresso, glabro.

Head produced in front, almost rostrate; eyes oblong, depressed, slightly elevated in the middle, upper surface closely and deeply punctured, the punctures near the eyes and in front finer and confluent, in the raised middle portion distinct. Thorax widest at base, the sides hardly rounded at all, gradually narrowed in front, crenulate; disc coarsely punctured, punctures confluent, several raised impunctate portions varying in individuals in size and number, but of which a central basal one divided in front, and two elongate ones on each side, are the most constant; hinder angles acute and produced, as is also the base in the middle; anterior margin sinuate, angles rounded and not much produced. Elytra each with nine or ten striæ, coarsely and irregularly punctured, often coalescing and leaving the interstices as detached raised portions, the two yellow spots on each have apparently

been developed from two such portions of the fourth interstice. In some specimens the striæ are more regular than in others, and in these the spot presents a form which has so often puzzled me to divine the cause in *Coleoptera* of a detached, polished, raised callus, and of which I believe the above is the explanation, the rows of punctures having in some instances become fixed after the formation of the tubercle. The colour of the upper surface is bronze, of the underside pitchy, brassy on the sides of the thorax, the abdomen rufous; legs and antennæ pitchy red, knees and club of the latter darker.

Mr. Lewis says, "this species is abundant in the South East of Nipon, from Hiogo through Kawatchi to Yokohama. I could not find it in Kiushiu, nor has it been received from Yesso. A few examples have been received from Shanghai, so that it may have a fairly wide range westward. It occurs with the *Cossus* in company with *Ips Chinensis* in elm and Spanish chestnut, is active during June and July in the heat of the day, and when disturbed will run and then fall, but rarely takes wing. It is confined to the plains, not appearing at low or intermediate altitudes."